REMARKS

In accordance with the foregoing, claims have been neither amended nor canceled. Claims 1-16 are pending and under consideration.

REJECTION UNDER 35 U.S.C. §102:

Claims 1-3, 5-8, 10-12 and 14-15 rejected under 35 U.S.C. 102(a) as being anticipated by Fritz et al. (U.S. Patent No. 7,324,226).

Fritz et al. discusses "a printing process might be broken, e.g. because the printer runs out of paper or the ACL connection is broken, etc. This is reported by the printer server in a message received by the printer client. The entity 501 comprises a device 527 arranged for interpret the message and give a note to the user of the processing unit, e.g. by presenting the note on the screen of the PC. (col. 5, lines 56-62).

Claim 1 recites "determining whether data to be printed are not received by the wireless printer server for more than a predetermined period during the wireless printing operation..."

As noted above, Fritz et al. merely checks whether or the printer runs out of paper or the ACL connection is broken."

Thus, Fritz et al. does not disclose "whether data to be printed are not received by the wireless printer server for more than a predeterrmined period during the wireless printing operation."

Further, Fritz et al. discusses "[t]he entity 501 comprises a sending device 509 arranged for sending keep alive messages frequently to the printer server. A keep alive timer 510 is implemented in the entity 501 and comprises a starting device 511 arranged for starting and restarting the keep alive timer 510 each time a valid message is sent to the printer server and each time a valid message is received from the printer server.(col. 5, lines 35-41).

However, claim 1 recites "determining whether data to be printed are not received by the wireless printer server for more than a predetermined period during the wireless printing operation."

As noted above, Fritz et al. merely discloses a keep alive timer 510 to send a valid message to a printer.

In addition, claim 1 recites "...determining whether a link state or a link quality of a wireless communication is good by analyzing the received wireless communication information."

Fritz et al. discusses "A printing process might be broken, e.g. because the printer runs out of paper or the ACL connection is broken, etc. This is reported by the printer server in a message received by the printer client. The entity 501 comprises a device 527 arranged for interpret the

message and give a note to the user of the processing unit, e.g. by presenting the note on the screen of the PC."(col. 5, lines 56-62).

As such, Fritz et al. fails to disclose "determining whether a link state or a link quality of a wireless communication is good by analyzing the received wireless communication information" as recited in claim 1.

Claim 2 recites "determining whether the link quality is in good condition to smoothly perform the wireless communication when the link state of the wireless communication is in the on state."

Fritz et al. discusses "the printer entity 601 further comprises a responding device 604 arranged for responding upon a connection request whether the connection is successful or not, in a response message sent to the printer client."(col. 6, lines 44-45).

As noted above, Fritz et al. merely discloses whether to check a connection of is successful or not.

As such, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 2.

Claim 3 recites "...the link quality information on the wireless communication are generated as the printer error information in (d)."

Fritz et al. discusses "a printing process might be broken, e.g. because the printer runs out of paper or the ACL connection is broken, etc. This is reported by the printer server in a message received by the printer client. The entity 501 comprises a device 527 arranged for interpret the message and give a note to the user of the processing unit, e.g. by presenting the note on the screen of the PC. (col. 5, lines 56-62).

As noted above, Fritz et al. only discusses a connection of printer but fails to disclose "the link quality information on the wireless communication" recited in claim 3.

Accordingly, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 3.

In addition, claim 5 is patentable due at least to its depending from claim 1, as well as for the additional recitations therein.

Clam 6 recites "a data receiving detection unit to detect whether data to be printed are not received by the wireless printer server for more than a predetermined period during the wireless printing operation and to output a detection unit."

Fritz et al. discusses "[t]he entity 501 comprises a sending device 509 arranged for sending keep alive messages frequently to the printer server. A keep alive timer 510 is implemented in the entity 501 and comprises a starting device 511 arranged for starting and

restarting the keep alive timer 510 each time a valid message is sent to the printer server and each time a valid message is received from the printer server.(col. 5, lines 35-41).

As noted above, Fritz et al. merely discloses a keep alive timer 510 to send a valid message to a printer.

However, Fritz et al. fails to disclose "a data receiving detection unit to detect whether data to be printed are not received by the wireless printer server for more than a predetermined period during the wireless printing operation and to output a detection unit" as recited in claim 6.

Further, claim 6 recites "a communication information analysis unit to analyze a link state or a link quality of the wireless communication by receiving the wireless communication information from the wireless printer server and to output an analysis result."

Fritz et al. discusses "the printer entity 601 further comprises a responding device 604 arranged for responding upon a connection request whether the connection is successful or not, in a response message sent to the printer client."(col. 6, lines 44-45).

As noted above, Fritz et al. merely discloses whether to check a connection is successful or not.

As such, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 6.

As such, Fritz et al. fails to disclose "a communication information analysis unit to analyze a link state or a link quality of a wireless communication by receiving the wireless communication information" as recited in claim 6.

Accordingly, it is respectfully submitted that Fritz et al. fails to disclose the invention recited in claim 6.

Claim 7 recites "a link quality measurement unit to measure the link quality with a sensitivity of communication between the wireless server printer and a host in response to the detection result and to output a measurement result."

Fritz et al. discusses "the printer entity 601 further comprises a responding device 604 arranged for responding upon a connection request whether the connection is successful or not, in a response message sent to the printer client."(col. 6, lines 44-45).

As noted above, Fritz et al. merely discloses whether to check a connection is successful or not.

As such, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 7.

Claim 8 recites "the error information generation unit generates the link state information and the link quality information on the wireless communication as the print error information."

Fritz et al. discusses "the printer entity 601 further comprises a responding device 604 arranged for responding upon a connection request whether the connection is successful or not, in a response message sent to the printer client."(col. 6, lines 44-45).

As noted above, Fritz et al. merely discloses whether to check a connection of is successful or not.

As such, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 8.

In addition, claim 10 is patentable due at least to its depending from claim 6, as well as for the additional recitations therein.

Claim 11 recites "determining, during a printing operation, whether data to be printed on a wireless network printer is not received for more than a predetermined period of time;"

Fritz et al. discusses "[t]he entity 501 comprises a sending device 509 arranged for sending keep alive messages frequently to the printer server. A keep alive timer 510 is implemented in the entity 501 and comprises a starting device 511 arranged for starting and restarting the keep alive timer 510 each time a valid message is sent to the printer server and each time a valid message is received from the printer server. The keep alive timer 510 further comprises a closing device 512 arranged for closing the connection between to the printer server, when the keep alive timer 510 expires."(col. 5, lines 35-44).

As such, Fritz et al. does not disclose "determining, during a printing operation, whether data to be printed on a wireless network printer is not received for more than a predetermined period of time."

In addition, claim 11 recites "generating and reporting print error information regarding a communication between a wireless network printer server and a computer when data is not received for more than the predetermined period of time."

Fritz et al. discusses "a printing process might be broken, e.g. because the printer runs out of paper or the ACL connection is broken, etc. This is reported by the printer server in a message received by the printer client. The entity 501 comprises a device 527 arranged for interpret the message and give a note to the user of the processing unit, e.g. by presenting the note on the screen of the PC. (col. 5, lines 56-62).

As noted above, Fritz et al. only discusses a connection of printer but fails to disclose "the link quality information on the wireless communication" recited in claim 11.

Accordingly, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 11.

Claim 12 recites "determining whether a link quality and a link state of the communication are both good, wherein the print error information is not generated and transmitted when the link quality and the link state are both good."

Fritz et al. discusses "The printer entity 601 comprises a starting device 612 arranged for starting a print job. The starting device 612 comprises a confirming device 613 arranged for confirming a start printjob request message sent to the printer client. The printer entity 601 comprises a receiving device 614 arranged for receiving print data from the printer client. The receiving device 614 including a sending device 615 arranged for sending an acknowledgement message to the printer client after receiving a previous decided number of print data request messages."(col. 7, lines 4-12).

However, as noted above, Fritz et al. fails to disclose "determining whether a link quality and a link state of the communication are both good."

Accordingly, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 12.

Claim 14 recites "determining, during a printing operation, whether data to be printed on a wireless network printer is not received for more than a predetermined period of time."

Fritz et al. discusses "[t]he entity 501 comprises a sending device 509 arranged for sending keep alive messages frequently to the printer server. A keep alive timer 510 is implemented in the entity 501 and comprises a starting device 511 arranged for starting and restarting the keep alive timer 510 each time a valid message is sent to the printer server and each time a valid message is received from the printer server. The keep alive timer 510 further comprises a closing device 512 arranged for closing the connection between to the printer server, when the keep alive timer 510 expires."(col. 5, lines 35-44).

As such, Fritz et al. does not disclose "determining, during a printing operation, whether data to be printed on a wireless network printer is not received for more than a predetermined period of time."

Accordingly, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 14.

Claim 14 further recites "generating and reporting print error information regarding a communication between a wireless network printer server and a computer when data is not received for more than the predetermined period of time."

Fritz et al. discusses "a printing process might be broken, e.g. because the printer runs out of paper or the ACL connection is broken, etc. This is reported by the printer server in a message received by the printer client. The entity 501 comprises a device 527 arranged for interpret the

message and give a note to the user of the processing unit, e.g. by presenting the note on the screen of the PC. (col. 5, lines 56-62).

As noted above, Fritz et al. merely discusses a printing process might be broken, e.g. because the printer runs out of paper or the ACL connection is broken, etc. This is reported by the printer server in a message received by the printer client. The entity 501 comprises a device 527 arranged for interpret the message and give a note to the user of the processing unit.

However, Fritz et al. fails to disclose generating and reporting print error information regarding a communication between a wireless network printer server and a computer when data is not received for more than the predetermined period of time.

Accordingly, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 14.

Claim 15 recites "determining whether a link quality and a link state of the communication are both good."

Fritz et al. discusses "The printer entity 601 comprises a starting device 612 arranged for starting a print job. The starting device 612 comprises a confirming device 613 arranged for confirming a start printjob request message sent to the printer client. The printer entity 601 comprises a receiving device 614 arranged for receiving print data from the printer client. The receiving device 614 including a sending device 615 arranged for sending an acknowledgement message to the printer client after receiving a previous decided number of print data request messages."(col. 7, lines 4-12).

However, as noted above, Fritz et al. fails to disclose "determining whether a link quality and a link state of the communication are both good."

Accordingly, it is respectfully submitted that Fritz et al. fails to disclose the invention as recited in claim 15.

REJECTION UNDER 35 U.S.C. §103:

Claims 4 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz et al. as applied to claims 1 and 6 above, and further in view of Inoguchi et al. (U.S. Patent No. 7,107, 058).

By way of review, Inoguchi et al. sets forth that "the printed sheet may contains the number and name of a contact office (the telephone number of a service center or the line) to call in case failure occurs, in may also indicate channels that can be set (interference-free channels) While the embodiment has been described with respect to a printer, the capability of implementing the process shown in FIG. 3 may be provided in a projector including a wireless LAN facility to allow the user to reference measurements to select an optimum channel. In that case, information about a problem may be projected onto a screen, instead of printing out it. The present invention is not

limited to a printer. The present invention can be applied to any data output devices that wirelessly receive data to output."(col. 6, lines 50-62-emphasis added).

However, Inoguchi et al. fails to teach or suggest "wherein date and time the print error appeared, channel information, or identification address and internet address of the host, which transfers the data to be printed, are further generated as print error information in (d)." as recited claim 4.

As such, it is respectfully submitted that the combinations of Fritz et al. and Inoguchi et al. fails to disclose the invention as recited in claim 4.

Claim 9 is patentable due at least to the similar rationales as claim 4, as well as for the additional recitations therein.

Claims 13 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz et al. as applied to claims 11 and 14 above, and further in view of Nakajima et al. (Japanese Publication No. 2002-229761).

Claim 13 recites "the link quality denotes a sensitivity of the communication, which can be measured using a signal-to-noise (S/N) ratio."

Nakajima et al. discusses "a transmission duration time is calculated from print data size and transmission speed of Bluetooth unit and sensibility of radio is calculated."(paragraph[0034]).

Thus, Nakajima et al. fails to disclose signal-to-noise ratio recited in claim 13.

As such, it is respectfully submitted that the combinations of Fritz et al. and Nakajima et al. fails to disclose the invention as recited in claim 13.

In addition, claim 16 also patentable due at least to the similar rationales as claim 13, as well as for the additional recitations therein.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: May 13, 2008

By: _____
Sang Chul Kwon
Limited Recognition No. L0218

1201 New York Avenue, N.W., 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501